

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
24 March 2005 (24.03.2005)

PCT

(10) International Publication Number
WO 2005/025640 A3

(51) International Patent Classification⁷: **A61M 5/00**

(21) International Application Number:
PCT/US2004/026703

(22) International Filing Date: 17 August 2004 (17.08.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/501,358 9 September 2003 (09.09.2003) US

(71) Applicant (for all designated States except US): **WISCONSIN ALUMNI RESEARCH FOUNDATION** [US/US]; 614 Walnut Street, Madison, WI 53707-7365 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **MEDOW, Joshua, E.** [US/US]; 7476 Old Sauk Road, Madison, WI 53717 (US). **LUZZIO, Christopher, C.** [US/US]; 1441 Starr Grass, Madison, WI 53719 (US).

(74) Agents: **FIESCHKO, Craig, A.** et al.; DeWitt Ross & Stevens S.C., Suite 401, 8000 Excelsior Drive, Madison, WI 53717-1914 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

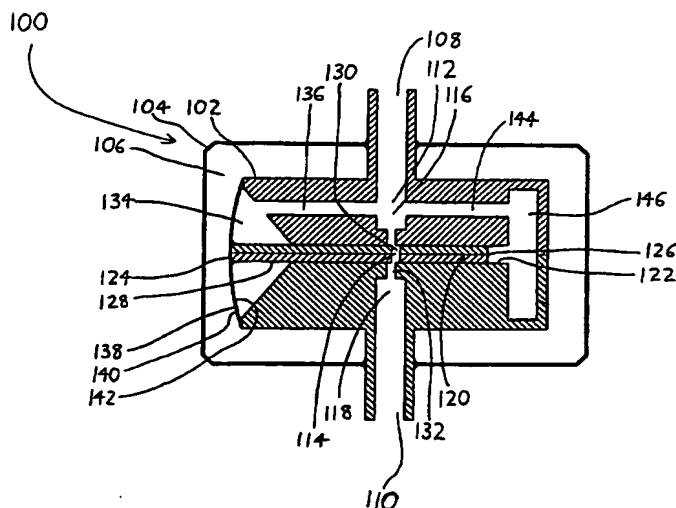
— of inventorship (Rule 4.17(iv)) for US only

Published:

— with international search report

[Continued on next page]

(54) Title: MEDICAL SHUNT/VALVE FOR REGULATION OF BODILY FLUIDS



(57) Abstract: Shunts (valves) (100) for controlled flow of bodily fluids, such as cerebrospinal fluid, include a valve actuating member (114) (such as a piston (120)) between inlet (108) and outlet (110) ports. The valve actuating member is biased toward a state wherein the valve is closed, and it includes a face adjacent the upstream side of the valve (and preferably isolated from the downstream side of the valve) whereby fluid pressure in the upstream side exerts an opening force on the face to urge the valve toward an open state. When the opening force on the valve exceeds the closing force by some amount, the valve actuating member moves the valve to the open state, allowing fluid flow through the fluid passage between the inlet and outlet ports.



— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(88) Date of publication of the international search report:
9 June 2005